

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims: Please amend the claims as follows:

We claim:

Claims 1.-73. (Cancelled)

Claim 74. (Currently Amended) A recognition molecule comprising variable heavy (VH) and variable light (VL) antibody framework sequences and complementarity determining regions (CDRs) comprising the amino acid sequences set forth in an amino acid sequence which contains

- (i) the amino acid sequence SEQ ID NO. 1, ~~and~~
 - (ii) the amino acid sequence SEQ ID NO. 2 or 3, ~~and~~
 - (iii) the amino acid sequence SEQ ID NO. 4, 5 or 6,
 - (iv) the amino acid sequence SEQ ID NO. 7 or 8 or 9,
 - (v) the amino acid sequence SEQ ID NO. 10 or 11, and
 - (vi) the amino acid sequence SEQ ID NO. 12 or 13,
- and which specifically binds to ~~the~~ core 1 antigen.

Claim 75. (Cancelled)

Claim 76. (Previously Presented) The recognition molecule according to claim 74, wherein the antibody framework sequences

- a) FRH1, ~~FRH2~~, FRH3 and FRH4 for the variable heavy chain VH are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRH1 in position	1	Q or E
	2	V
	3	Q, K or T
	4	L
	5	K or V
	6	E or Q
	7	S
	8	G

9	A
10	E
11	L or V
12	V or K
13	R or K
14	P
15	G
16	T or A
17	S
18	V
19	K
20	I or V
21	S or P
22	C
23	K
24	A, V, S or T
25	S
26	G
27	Y, F, S or D
28	T
29	F, L or

I

for FRH2 in position

30	T
36	W
37	V
38	K or R
39	Q
40	R or A
41	P
42	G
43	H or Q
44	G
45	L
46	E

for FRH3 in position

47 W or R
48 I or M
49 G
66 K or R
67 A or V
68 T
69 L or M
70 T
71 A, L or T
72 D
73 T
74 S
75 S or T
76 S
77 T
78 A
79 Y
80 M
81 Q or E
82 L
82a S
82b S or R
82c L
83 T or R
84 S
85 E
86 D
87 S or T
88 A
89 V
90 Y
91 F or y
92 C
93 A

	94	Y, K or R
for FRH4 in position	103	W
	104	G
	105	Q
	106	G
	107	T
	108	T, S or L
	109	V or L
	110	T
	111	V
	112	S
	113	S or A

b) FRL1, FRL2, FRL3 and FRL4 for the variable light chain VT, are the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:
for FRL1 in position

1	D
2	I, V or L
3	Q or L
4	M
5	T
6	Q
7	T or S
8	P
9	L
10	S
11	L
12	P
13	V
14	S or T
15	L or P
16	G
17	D or E
18	Q or P

19	A
20	S
21	I
22	S
23	C

for FRL2 in position

35	W
36	Y
37	L
38	Q
39	K
40	P
41	G
42	Q
43	S
44	P
45	K or Q
46	L
47	L
48	I or V
49	Y

for FRL3 in position

57	G
58	V
59	P
60	D
61	R
62	F
63	S
64	G
65	S
66	G
67	S

68	G
69	T
70	D
71	F
72	T
73	L
74	K
75	I
76	S
77	R
78	V
79	E
80	A
81	E
82	D
83	L or V
84	G
85	V
86	Y
87	Y
88	C

for FRL4 in position

98	F
99	G
100	G or Q
101	G
102	T
103	K
104	L
105	E
106	I or L
106a	K
107	R

Claim 77. (Previously Presented) The recognition molecule according to claim 74, wherein the recognition molecule comprises a combination of sequences SEQ ID Nos. 46 and 80, or SEQ ID Nos. 47 and 81, or SEQ ID Nos. 48 and 80, or SEQ ID Nos. 50 and 80, or SEQ ID Nos. 53 and 82, or SEQ ID Nos. 52 and 83, or SEQ ID Nos. 55 and 83, or SEQ ID Nos. 54 and 80, or SEQ ID Nos. 51 and 83, or SEQ ID Nos. 49 and 80, or SEQ ID Nos. 56 and 90, or SEQ ID Nos. 57 and 90, or SEQ ID Nos. 57 and 86, or SEQ ID Nos. 58 and 87, or SEQ ID Nos. 56 and 91, or SEQ ID Nos. 59 and 91, or SEQ ID Nos. 60 and 87, or SEQ ID Nos. 61 and 90, or SEQ ID Nos. 56 and 88, or SEQ ID Nos. 56 and 85, or SEQ ID Nos. 59 and 90, or SEQ ID Nos. 62 and 90, or SEQ ID Nos. 59 and 86, or SEQ ID Nos. 74 and 92, or SEQ ID Nos. 63 and 87, or SEQ ID Nos. 74 and 87, or SEQ ID Nos. 74 and 89, or SEQ ID Nos. 74 and 85, or SEQ ID Nos. 64 and 86, or SEQ ID Nos. 74 and 86, or SEQ ID Nos. 63 and 86, or SEQ ID Nos. 65 and 85, or SEQ ID Nos. 65 and 86, or SEQ ID Nos. 66 and 85, or SEQ ID Nos. 67 and 87, or SEQ ID Nos. 68 and 86, or SEQ ID Nos. 72 and 88, or SEQ ID Nos. 69 and 90, or SEQ ID Nos. 70 and 90, or SEQ ID Nos. 69 and 92, or SEQ ID Nos. 73 and 86, or SEQ ID Nos. 69 and 89, or SEQ ID Nos. 71 and 92, or SEQ ID Nos. 56 and 86, or SEQ ID Nos. 65 and 92.

Claim 78. (Previously Presented) The recognition molecule according to claim 74, wherein said recognition molecule is a single-chain antibody fragment, a multibody, a Fab fragment, a fusion protein of an antibody fragment with peptides or proteins and/or an immunoglobulin of the IgG, IgM, IgA, IgE, IgD isotypes and/or subclasses thereof.

Claim 79. (Currently Amended) A construct comprising the recognition molecules according to claim 74, ~~further comprising wherein the recognition molecules are fused, chemically coupled, covalently or non-covalently associated with~~ (i) immunoglobulin domains of various species, (ii) enzyme molecules, (iii) interaction domains, (iv) domains for stabilization, (v) signal sequences, (vi) fluorescent dyes, (vii) toxins, (viii) catalytic antibodies, (ix) one or more antibodies or antibody fragments with different specificity, (x) cytolytic components, (xi) immunomodulators, (xii) immunoeffectors, (xiii) MHC class I or class II antigens, (xiv) chelating agents for radioactive labelling, (xv) radioisotopes, (xvi) liposomes, (xvii) transmembrane domains, (xviii) viruses and/or (xix) cells.

Claim 80. (Currently Amended) A method for the production of recognition molecules according to claim 74, comprising [a]

(+) ~~incorporating in a virus or in a host cell, at least one or more polynucleotides which encode~~

~~the polypeptide sequences set forth in~~ polynucleotide which encodes the polypeptide sequence of at least one recognition molecule, wherein said polypeptide sequence comprises

- (a) the amino acid sequence SEQ ID NO. 1, ~~and~~
- (b) the amino acid sequence SEQ ID NO. 2 or 3, ~~and~~
- (c) the amino acid sequence SEQ ID NO. 4, 5 or 6,
- (d) the amino acid sequence SEQ ID NO. 7 or 8 or 9,
- (e) the amino acid sequence SEQ ID NO. 10 or 11, and
- (f) the amino acid sequence SEQ ID NO. 12 or 13,

~~(ii) culturing the host cells or the virus~~ under suitable conditions for the expression of said polypeptides; and

~~(iii) obtaining the recognition molecule, the effector cell bearing the recognition molecule, or the virus specifically recognizing a core 1 antigen.~~

Claim 81. (Currently Amended) A method for the prophylaxis, ~~prevention,~~ diagnosis, reduction, therapy, follow-up or aftercare of a core-1 positive tumor disease or a core-1 positive metastasis, comprising administering to a subject in need thereof, a recognition molecule according to claim 74.

Claim 82. (Currently Amended) The method according to claim 81, wherein the recognition molecule is a non-labelled recognition molecule, which ~~is comprises~~ an IgM or IgG or is a molecule has been derived therefrom.

Claim 83. (Previously Presented) The method according to claim 81, wherein the recognition molecule is a multibody.

Claim 84. (Currently Amended) A method for the prophylaxis, ~~prevention,~~ diagnosis, reduction, therapy, follow-up or aftercare of a core-1 positive tumor disease or a core-1 positive metastasis, comprising administering to a subject in need thereof, a construct according to claim 79.